

Application Serial Number	10/691,007
Filing Date	October 22, 2003
First Named Inventor	Lochtefeld
Group Art Unit	2812
Examiner Name	Not yet assigned
Attorney Docket No.	ASC-060
Patent No.	Not applicable
Issue Date	Not applicable

**ENCLOSURES (check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Check Attached <input type="checkbox"/> Copy of Fee Transmittal Form  <input type="checkbox"/> Amendment/Response <input type="checkbox"/> Preliminary <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets ____]  <input type="checkbox"/> Petition for Extension of Time  <input checked="" type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Form PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Sequence Listing submission <input type="checkbox"/> Paper Copy/CD <input type="checkbox"/> Computer Readable Copy <input type="checkbox"/> Statement verifying identity of above	<input type="checkbox"/> Copy of Notice to File Missing Parts of Application  <input type="checkbox"/> Formal Drawing(s)  <input type="checkbox"/> Request For Continued Examination (RCE) Transmittal  <input type="checkbox"/> Power of Attorney (Revocation of Prior Powers)  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Executed Declaration and Power of Attorney for Utility or Design Patent Application  <input type="checkbox"/> Small Entity Statement  <input type="checkbox"/> CD(s) for large table or computer program  <input type="checkbox"/> Amendment After Allowance  <input type="checkbox"/> Request for Certificate of Correction <input type="checkbox"/> Certificate of Correction (in duplicate)	<input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences  <input type="checkbox"/> Appeal Brief (in triplicate)  <input type="checkbox"/> Status Inquiry  <input checked="" type="checkbox"/> Return Receipt Postcard <input checked="" type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8  <input type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8  <input type="checkbox"/> Additional Enclosure(s) (please identify below)
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**CORRESPONDENCE ADDRESS**

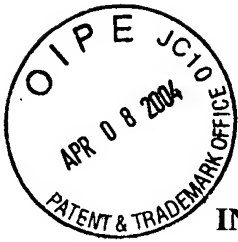
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**SIGNATURE BLOCK**

Respectfully submitted,

Date: April 5, 2004  
 Reg. No. 44,381  
 Tel. No.: (617) 310-8327  
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PATENT  
Attorney Docket No. ASC-060

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S):       Lochtefeld *et al.*  
SERIAL NO.:         10/691,007         GROUP NO.:         2812  
FILING DATE:        October 22, 2003       EXAMINER:         Not yet assigned  
TITLE:               GATE MATERIAL FOR SEMICONDUCTOR DEVICE  
                      FABRICATION

**CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8**

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 5<sup>th</sup> day of April, 2004.

  
Wendy Martin

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith are: Transmittal Form (1 page); Information Disclosure Statement (2 pages); Form PTO 1449 (2 pages); Copies of cited references B1-B2 and C1-C9; and a return receipt postcard.

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PATENT  
Attorney Docket No. ASC-060

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S):           Lochtefeld et al.  
SERIAL NO.:           10/691,007           GROUP NO.:           2812  
FILING DATE:           October 22, 2003           EXAMINER:           Not yet assigned  
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                          FABRICATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. Copies of the publications and non-U.S. patents are enclosed.

**REMARKS**

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or

- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

### STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:


- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Date: *April 5, 2009*  
Reg. No. 44,381

Tel. No.: (617) 310-8327  
Fax No.: (617) 248-7100

VER 12/00  
3048690-1

  
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125 High Street  
Boston, Massachusetts 02110

[illegible]

<b>FORM PTO - 1449</b>				<b>ATTORNEY DOCKET NO.: ASC-060</b>					
<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>				APPLICANT(S): Lochtefeld <i>et al.</i> SERIAL NO.: 10/691,007 FILING DATE: October 22, 2003 GROUP: 2812					
<b>U.S. PATENT DOCUMENTS</b>									
<b>EXAM. INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE IF APPROPRIATE</b>		
<b>FOREIGN PATENT DOCUMENTS</b>									
<b>EXAM. INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY CODE</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE</b>	<b>ABSTRACT ONLY</b>	<b>ENGLISH LANG (Y/N)</b>
<b>OTHER ART, JOURNAL ARTICLES, ETC.</b>									
<b>EXAM. INIT.</b>	<b>OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)</b>								
	C6	Takagi <i>et al.</i> (August, 2001) "Strained-Si-on-Insulator (Strained-SOI) MOSFETs-Concept, Structures and Device Characteristics", IEICE Trans. Electron., Vol. E84-C, No. 8, pp. 1043-1050.							
	C7	Wyon (2002) "Future technology for advanced MOS devices", <u>Nuclear Instruments &amp; Methods in Physics Research, Section - B: Beam Interactions With Materials and Atoms</u> , North-Holland Publishing Company, Amsterdam, NL, Vol. 186, No. 1-4, pp. 380-391.							
	C8	Xiang <i>et al.</i> (2000) "Very High Performance 40nm CMOS with Ultra-thin Nitride/Oxynitride Stack Gate Dielectric and Pre-doped Dual Poly-Si Gate Electrodes", <u>International Electron Devices Meeting 2000 IEDM Technical Digest</u> , pp. 860-862.							
	C9	International Search Report for PCT/US03/33561, dated 3/24/2004							
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>				

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